

SHADES OF GRAY



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NATIONAL MARINE
SANCTUARIES

Gray's Reef Assists in Successful Disentanglement of Right Whale New Year's Eve

On New Year's Eve, Gray's Reef aided in the successful disentanglement of a North Atlantic right whale wrapped in fishing gear. The sanctuary took its two offshore vessels, the R/V *Joe Ferguson* and R/V *Sam Gray*, to the incident site approximately 40 miles offshore Hilton Head, S.C., and provided back up support to the Coast Guard cutter *Yellowfin*, which was on the scene. The *Sam Gray* served as an observation and tracking vessel for the disentanglement team. Sanctuary offices on Skidaway Island were used by NOAA Fisheries as a command post.

"This is a severe entanglement involving ropes wrapped tightly around the head of a young whale that is still growing," Dr. Teri Rowles, lead veterinarian for NOAA Fisheries and director of the Marine Mammal Health and Stranding Response Program, said before the New Year's Eve

effort. "These type of head and flipper wraps are the hardest disentanglements to attempt."

The 32-foot, juvenile whale was first spotted entangled off the coast of North Carolina in early December and was re-sighted as it traveled south. It was towing a large orange buoy approximately 300 feet behind. On Dec. 21, a scientific aerial survey team searching for right whales off the coast of Georgia spotted the entangled whale and first response teams from Florida and Georgia raced to attach a satellite tracking buoy to the trailing gear before dark.

The North Atlantic right whale is the most endangered whale off American coasts. After a period of intense whaling in the 19th and early 20th centuries, it was on the brink of extinction. Although whaling for right whales has ceased, they still face seri-

ous risks from ship collisions and entanglements in fishing gear and marine debris. The North Atlantic right whale population is now estimated to be approximately 300 animals and is listed as "Endangered" under the U.S. Endangered Species Act of 1973. Right whales and all other species of marine mammals are protected under the U.S. Marine Mammal Protection Act of 1972.

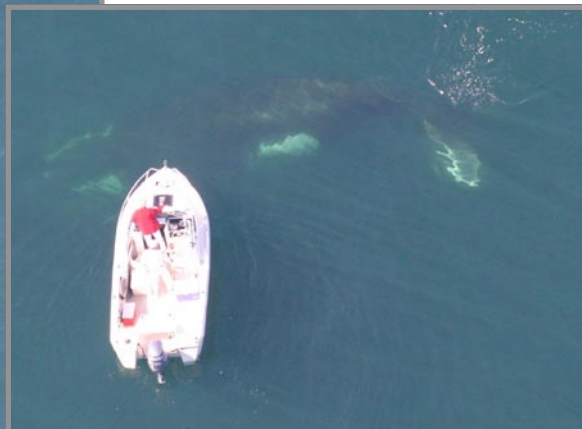
It is illegal to approach within 500 yards of a right whale.

"Right whales are obstinate, very powerful, and they have a level of determination that is very different from the other species," said Dr. Charles "Stormy" Mayo, senior scientist for the Provincetown Center for Coastal Studies (PCCS), one of the disentanglement team members. "They are exceedingly dangerous to work with."

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Boat Cited in Gray's Reef for Being too Close to Right Whale



A boater gets too close to an endangered right whale in Gray's Reef NMS. Photos from the England Aquarium, GDNR/Wildlife Trust were taken under a permit issued by NOAA Fisheries.

The Georgia Department of Natural Resources (DNR) issued its first-ever verbal warning to a boater who came too close to an endangered right whale in Gray's Reef in February. Federal law requires boaters to stay at least 500 yards away from right whales, which use the waters off Georgia and Florida as calving grounds.

The Georgia DNR has a cooperative agreement with Gray's Reef to patrol in the sanctuary and enforce regulations when needed.

On Feb. 19, an aerial survey team from DNR and the Wildlife Trust spotted four recreational boats near a group of four whales, according to Clay George, a DNR

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SHADES OF GRAY

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We welcome comments and will consider publication of items submitted by readers as space permits.

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wildlife biologist. DNR law enforcement officers boarded the one boat that remained in the area when they arrived.

"The person was completely unaware of the rule and was apologetic," George said.

Federal and state officials are concerned for the safety of both whales and boaters. North Atlantic right whales, of which only an estimated 300 remain, come to Georgia waters from December through March to give birth. Other segments of the right whale population are also observed here during the winter. Boaters can disrupt whales' social activity, George said, as in this case where the group of whales dispersed after the boaters approached.

George also reported that on March 10, a recreational boat accidentally struck a female right whale off Cumberland severing half its left fluke. The whale has been seen numerous times since.

Boaters who spot a whale should contact the U.S. Coast Guard on channel 16, George said. The Coast Guard issues advisories to commercial shippers and passes along information about whale sightings to the U.S. Navy, which issues advisories to their military vessels.



Gray's Reef Sanctuary Advisory Council Grows

Gray's Reef welcomed four new non-governmental members to its Sanctuary Advisory Council in March—Tim Tarver, Judy Helmey, Ralph Neely and Christi Lambert.

Tarver, founding president of the Sapelo Saltwater Fishing Club and a member of the Coastal Conservation Association of Georgia's Executive Board, has been diver and fisherman at Gray's Reef since 1979. He replaces Bing Phillips as the council's sport fishing representative for the next three years. Phillips served six years on the council, the last year as vice-chairman.

Helmey, a Savannah-based charter boat captain and owner of Miss Judy Charters, has been involved in the fishing industry all her life. She fills a newly-created council seat for charter/commercial fishing.

From the Sanctuary Manager

By Reed Bohne, Sanctuary Manager

Gray's Reef may be a small sanctuary in the midst of a very big ocean, but we try to make our reach as broad as possible. To do so, we move forward with our partners and our volunteers. This issue of Shades of Gray highlights some of those efforts.

Instead of toasting in the New Year, the operations staff of the sanctuary joined our partners the South Carolina and Georgia Departments of Natural Resources, NOAA Fisheries and the U.S. Coast Guard to aid in the rescue of a North Atlantic right whale. No one single agency could have come to the aid of the entangled juvenile alone—together, the partners were successful in disentangling the whale.

Our on campus partners the Skidaway Institute of Oceanography and the Marine Education Center and Aquarium supported Gray's Reef's dedication of our newest boat, the R/V Sam Gray. The Sam Gray will share a dock with boats from the Georgia Aquarium, a Gray's Reef education partner.

Volunteers added their willing hands and spirits to our Earth Day efforts by helping children create sea jellies (jellyfish) out of recycled materials. They prepared the materials ahead of time and on two days of Earth Day celebrations were on hand to help little fingers tie ribbon tentacles onto water bottle sea jelly bodies.

Our volunteers will help pick trash out of the sanctuary, clean up a nearby beach and take tickets at our September film festival. None of those events would be possible without them.

Each partnership action each volunteer hour magnifies and multiplies our staff's efforts to improve conservation and protection of Gray's Reef resources.

We are happy to have them on board.



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Gray's Reef Assists continued from page 1

Other team partners on the water included NOAA Fisheries Biologists Gretchen Lovewell and Barb Zoodsma, who is the NOAA Fisheries coordinator for right whale recovery in the Southeast; David Morin and Scott Landry from PCCS; Jamison Smith, Tom Pitchford and Alicia Windham-Reid from Florida Fish and Wildlife Conservation Commission; and Clay George of the Georgia Department of Natural Resources and Rowles.

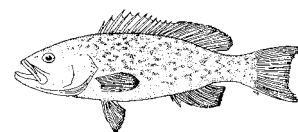
The first step, tagging the whale, was critical. It allowed team members to track the whale remotely and plan their next effort around the weather; which for the next nine days produced continuously high winds and seas and no chance for marine operations. Then, on December 29, using a three-day prediction of both the weather and the track of the whale, teams from Florida, Georgia and Massachusetts headed to Wilmington, North Carolina, where University of North Carolina research vessels had been reserved for the mission.

Early that evening, however, the whale unexpectedly turned around and headed south toward Charleston, S.C. During the next morning, the team swiftly re-staged the operation 170 miles south, moving equipment, rescue boats and personnel to Charleston where the Coast Guard cutter, *Yellowfin*, had been made available for an overnight mission.

In the morning, with the addition of the Gray's Reef vessels, the team began adding drag to the gear trailing from the whale in an attempt to slow it down and make access to the wraps on the head possible. The whale did not react as hoped and instead fought the added drag. The team was unable to reach the head wrap. Next, drag was added to the gear by pressure from one of the working boats. Shortly thereafter, the team felt a line part and the South Carolina DNR/Wildlife Trust South Carolina aerial team circling overhead reported that no gear was now visible on the whale.

A Georgia DNR/Wildlife Trust aerial survey team re-sighted the whale on January 2, 2005, just offshore of Sapelo Island, near Gray's Reef National Marine Sanctuary, in the company of other right whales. The whale was nicknamed *Yellowfin*, in honor of the U.S. Coast Guard vessel and crew.

Recent months have proven harsh for the extremely endangered right whale population. Four right whales have been found dead in U.S. waters. On an optimistic note, a preliminary count of 27 new calves has been documented in southeast waters as of March 31. While this is good news, of greater import is whether these calves can survive to adulthood when they can reproduce and contribute to the population. To date, this has been a real sticking point for this population.

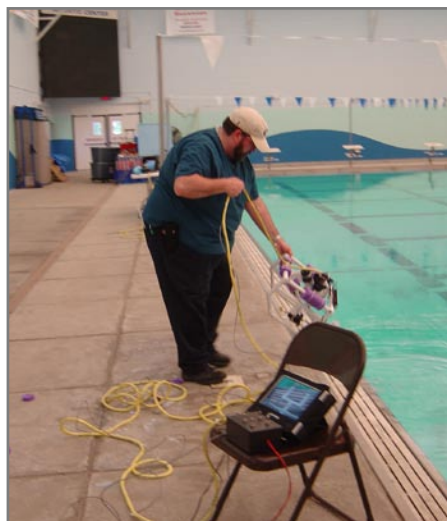


Teachers Build Their Own Underwater Vehicles with an Eye on National Recognition

Gray's Reef hosted a pool party with a purpose recently.

Seven Georgia teachers learned how to build their own Remotely Operated Vehicles (ROV) during a unique hands-on workshop sponsored by Gray's Reef. Part of the workshop was held in the Chatham County Aquatic Center where the teachers tried out the seaworthiness of their vehicles. Each participant was given a kit so they can work with their students to create their own ROVs.

It is hoped that one or two teams from the Savannah area will build an ROV worthy of competing in the southeastern regional competition in 2006. Winners of regional competitions go on to compete in the international competition sponsored by the Marine Advanced Technology Education (MATE) Center.



Tony Caruso of Jenkins High School lands his ROV for a little more fine-tuning.



Tony Caruso of Jenkins High School ponders his next move as he constructs his ROV.



Sally Ferrelle from Oglethorpe Academy proudly poses with her newly built & launched ROV.

Sanctuary Dedicates New Research Vessel *Sam Gray*

Flags snapped in a brisk northeast breeze when the newest Gray's Reef boat, the R/V *Sam Gray* was dedicated April 15th at the dock of the Marine Education Center and Aquarium (MECA) on the campus of the Skidaway Institute of Oceanography.

At the dedication ceremony, the words "Gentleman, we hereby dedicate the NOAA Research Vessel *Sam Gray* into service," rang through the crowd followed by the lifting of the red, white and blue bunting to reveal the 32-foot vessel's name. As its horn sounded, the R/V *Sam Gray* was officially deemed in service at the sanctuary. The declarative words were spoken by Rachel Greene Bottone and her sister, Lisa Greene, who considered Sam Gray and his wife, Helen, part of their extended family when they grew up on Sapelo Island where their father Dr. Albert Greene was on the institute faculty.

"The *Sam Gray* represents a major step forward in the sanctuary's research and monitoring programs by providing a substantial platform for sanctuary diving operations, which is the most basic tool we have to help manage the use of coastal and ocean resources," said sanctuary manager Reed Bohne.

The *Sam Gray* was named for Milton Berford "Sam" Gray, an early invertebrate collector for the Sapelo Island Research Foundation and the University of Georgia Marine Institute and the sanctuary's namesake. Appropriately, some colleagues of Sam Gray from his days at the Marine Institute were on hand for the dedication.

Dr. George Lauff, director of the University of Georgia Marine Institute from 1960-62, reminisced about Sam Gray and the early days of marine research on the Georgia coast. He was followed by Dr. Daniel Gleason, Department of Biology at Georgia Southern University. Gleason spoke of the invertebrate research being done today—including the recent discovery of several possible new species.

The *Sam Gray* will enable sanctuary scientists to better assess and predict changes in the natural systems within the sanctuary and to provide information about the future. The new boat, a 36-foot aluminum craft manufactured by Silver Ships, Inc. in Theodore Ala., is the first research vessel built exclusively for Gray's Reef National Marine Sanctuary. Gray's Reef took delivery of the vessel in late December 2004.



Milton Berford "Sam" Gray, 1895–1967

(A complete biography of Sam Gray is posted on the Gray's Reef website www.graysreef.noaa.gov along with pictures of him at work.)

For most of his 72 years, Milton "Sam" Gray's name was linked with research on marine invertebrates. It was said that, "Sam Gray knows more about invertebrates on the Atlantic coast than any living man." It is therefore fitting that Gray's Reef National Marine Sanctuary, one of the finest examples of invertebrate-rich southeastern livebottom habitat, and now, the sanctuary's newest research vessel, should both be named for him.

Gray started collecting marine invertebrates for the Marine Biological Laboratory (MBL) at Woods Hole as a young man. Gruffly independent and hard working, he took fierce pride in providing living, intact specimens on a strict schedule, regardless of tides or weather. At MBL, he collected invertebrate specimens for more than 50 students. Some of those students went on to become experts in marine biology. They remembered Sam by naming decapod and isopod Crustacea and Polychaeta worms in his honor.

In the early 1960s, Gray was recruited by the Sapelo Island Research Foundation and the University of Georgia Marine Institute to collect invertebrates in the nearshore waters around Sapelo Island and preserve them for taxonomic research. He set up shop in an old dairy barn that served as the main laboratory for the Institute. He and his wife, Helen Penny Gray, and their schipperke dog, Skippy, soon made themselves at home on Sapelo.

Gray developed a close working relationship with Jimmy Rouse, captain of the *Kit Jones*. It was Gray who first introduced Sam to the coastal waters off Sapelo, and the area then called "Sapelo livebottom" by local fishermen. Soon, specimens from this habitat were well represented in Gray's research specimen collection.

One of the first direct results of the collection was the *Handbook of the Common Marine Isopod Crustacea of Georgia* by Robert Menzies and Dirk Frankenberg.

Gray continued his work on Sapelo as a seasonal resident. In 1965 he left Sapelo and returned to his home in Woods Hole where he remained until his death in 1967.

In 1974, Jesse Hunt, a graduate student at Skidaway Institute of Oceanography working under Dr. V.J. Henry, proposed that the Sapelo livebottom be re-named Gray's Reef to commemorate Gray's valuable contribution to the understanding of offshore habitats and marine organisms of the Georgia coast. In 1978, the Georgia Department of Natural Resources submitted a nomination to the Secretary of Commerce recommending the designation of Gray's Reef as a marine sanctuary.

In a Jan. 2, 1980, letter to Helen Gray, Dr. Nancy Foster, the then Deputy Director of the Sanctuary Program Office of NOAA, noted that the nearshore reef was recognized as a result of his extensive biological work in the area. The letter continued that sanctuary status for Gray's Reef would provide a comprehensive management framework to foster protection and understanding of the marine environment. Gray's Reef was designated a sanctuary on January 16, 1981.

The R/V *Sam Gray* represents a major step forward in the sanctuary's research and monitoring programs by providing a substantial platform for sanctuary diving operations. We anticipate that as of today and for many years to come, people up and down the Georgia coast will once again become comfortable hearing that Sam Gray is hard at work at Gray's Reef.

Biographical information on Milton Berford "Sam" Gray provided by Dr. George Lauff from an upcoming book on the 50th anniversary of the University of Georgia Marine Institute (the complete sketch of Gray by Lauff as well as the paper "Some Recollections of Milton B. Gray," by W. B. Burbanck are available on the Gray's Reef website at: graysreef.noaa.gov).

R/V *Sam Gray*

The R/V *Sam Gray* is an 11 meter Rigid Hull Inflatable Boat; with the engines attached the boat is approximately 36 ft. long and 8 ft. wide. The vessel was manufactured in Theodore, Ala., by Silver Ships INC. Gray's Reef took delivery of the vessel in late December of 2004. The vessel has an aluminum hull that is surrounded by foam and air filled collar. The original Silver Ships design was altered to include an aluminum cabin with seating for six to eight passengers and an operator. There is a forward V-berth that contains a marine head and a water-tight door that leads to the bow of the boat. The vessel has a 30 gallon fresh water tank for use while on station. The vessel is powered by two Yamaha 250hp outboard engines that are fueled by a 250 gallon tank. These engines attain a top speed around 37 knots. The boat is equipped with two GPS chart plotters and a 12 nautical mile radar. There are two depth sounders and two mounted VHF radios. The primary use for the vessel will be day trips to Gray's Reef and other research sites along the Georgia coast. Many of these trips will be for dive operations. The boat is equipped with a dive ladder as well as racks for scuba tanks. There will also be a permanent emergency oxygen delivery system installed.



Rachel (left) and Lisa Greene formally dedicate the R/V *Sam Gray* into service at the sanctuary in front of sanctuary manager Reed Bohne.



The R/V *Sam Gray*



George Lauff (left), director of the University of Georgia Marine Institute 1960-62, remembered Milton Berford "Sam" Gray during the dedication ceremony. Sanctuary Manager Reed Bohne is on the right.



George Lauff (left), director of the University of Georgia Marine Institute 1960-62, and other institute colleagues of Sam Gray gather to remember him at the April 15, 2005 dedication of the R/V *Sam Gray*. Jim Henry, Georgia Southern University, holds the dedication ceremony poster.

Ocean Film Festival Shipwrecks, Undersea Exploration are Among Themes for Second September Film Festival

Gray's Reef National Marine Sanctuary will sponsor the second Ocean Film Festival Sept. 23-25, 2005, at the Savannah College of Art and Design's Trustees Theater and the Tybee Island Marine Science Center.

"The enthusiasm in Savannah and the region generated by last year's successful film festival has inspired us to expand the event this year," said Sanctuary Manager Reed Bohne. "We hope to engage other organizations in the community in celebration of our ocean and coastal environments. We encourage additional sponsors to join the event."

Films about shipwrecks, maritime heritage, sea turtles, whales and undersea exploration are planned for this year's free, three-day festival. The event will also include short films from the Alaska Ocean Film Festival. The festival will include two days of free children's programming at the Tybee Island Marine Science Center.

The Savannah College of Art and Design's Trustees Theater on Broughton Street will

be the venue for most of the festival. All programs in the Savannah Ocean Film Festival will be free to the public.

The goal of the festival is to educate, inspire, entertain and foster a spirit of ocean stewardship through the screening of films that explore our relationship with the sea.

The 2004 Savannah Ocean Film Festival was a first for the East Coast and the first ocean film festival sponsored entirely by a national marine sanctuary. Two films produced by undersea explorer Jean-Michel Cousteau received their premiere U.S. showing at the event, and the film "Proteus" made its East Coast debut at the event.



Earth Day 2005 The Day of the Sea Jellies

Volunteers and staff from Gray's Reef participated in the City of Savannah's Earth Day celebration in Forsyth Park April 16th. Children who dropped by the booth were able to make sea jellies (jellyfish) from recycled soda bottles and other recycled material and take the colorful jellies home. According to the City of Savannah, more than 7,000 people attended the Earth Day festival.

Gray's Reef staff and volunteers also participated in an Earth Day festival on the campus of Georgia Southern University in Statesboro, GA, on April 21. On campus, Students About a Greener Environment (SAGE) filled the Gray's Reef booth and helped area elementary schoolers make the recycled jellies. SAGE volunteers frequently help at Gray's Reef events.



Education Intern Leah Cooling teaches children about sea jellies (jellyfish) before they begin making their take-home projects.

Credit: Doug Wyatt



Volunteer Troy Montgomery helps a child select material.

Credit: Andrea Hillis



Sea jellies (jellyfish) made with recycled materials are a big hit.

Credit: Doug Wyatt



Volunteer Terry Crowell helps with a sea jelly.

Credit: Andrea Hillis

Council Grows continued from page 2

Neely, owner and operator of Zero Gravity Divers Depot in Savannah, has been an avid diver off the coast of Georgia since the 1970s. He was also a recipient of the sanctuary's volunteer award in 2004. Neely replaces Judy Wright, also a private diver operator, in that role. Wright served six years, the last year as chairman of the council.

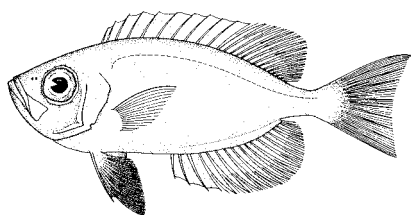
Lambert, Southeast Georgia Conservation Director for The Nature Conservancy, replaces Doug Rader of Environmental Defense as the regional conservation representative. Lambert also serves on the Sapelo Island Estuarine Research Reserve Advisory Committee.

In addition, two new government seats were recently created and filled—Sapelo Island National Estuarine Research Reserve and the Georgia Department of Natural Resources Law Enforcement.

Council member Joe Kimmel was elected chair; Leslie Sautter was elected vice chair and Venetia Butler was elected secretary.

The Gray's Reef Advisory Council was established in August 1999 to provide advice and recommendations on management and protection of the sanctuary. The council, through its members, also serves as a liaison to the community regarding sanctuary issues and represents community interest, concerns and management needs to the sanctuary and NOAA.

Governmental seats on the Council are generally non-voting (ex-officio) seats, while the non-government seats are voting. Since 1999, when the Council totaled 8 members plus the sanctuary manager as a non-voting seat, members have voted to include more seats to encompass the full constituency of the sanctuary. The total membership is now 15 including the sanctuary manager.



Gray's Reef Calendar

A listing of Gray's Reef National Marine Sanctuary Events. For more detailed information, see our website at www.graysreef.noaa.gov or call (912) 598-2345.

May

- 6 Sea Creature Fantasy contest, part of the Savannah College of Art and Design's Sand Sculpting event, Tybee Island
- 11 Beginning of the NOAA Ship *Nancy Foster* research cruise. The *Nancy Foster* will be on station in and around the sanctuary through June 2
- 13–14 Dive Into Education teachers workshop
- 21 The Marine Education Center and Aquarium (MECA) holds its "Trees to the Seas" fun run to raise money for Thunderbolt Elementary School's new marine sciences academy

June

- 2 End of the *Nancy Foster* research cruise
- 6–10 Capitol Hill Oceans Week
- 8 World Oceans Day
- 11–12 Volunteer divers do "World Oceans Day Sweep the Reef, Sweep the Beach" reef sweep clean up in the sanctuary. Boaters are urged to use caution around dive boats.
- 18 Volunteers from Clean Coast do a "World Oceans Day Sweep the Reef, Sweep the Beach" clean up of Ossabaw Island.
- 21 Sanctuary Advisory Council meeting, Charleston, S.C., at the Doubletree Suites. Meeting is open to the public; call (912) 598-2381 for more information
- 20–24 REEF (Reef Environmental Education Foundation) at Gray's Reef for diver fish counts

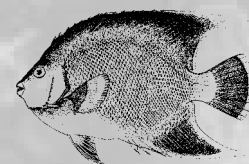


July

- 11–15 National Marine Educators Association meeting
- 13 Rivers-to-Reefs education workshop

September

- 23–25 Gray's Reef Ocean Film Festival, Trustees Theater, Savannah, and Tybee Island Marine Science Center, Tybee Island



NOAA's Gray's Reef National Marine Sanctuary

SHADES OF GRAY

10 Ocean Science Circle

Savannah, GA 31411

www.graysreef.noaa.gov



About Gray's Reef National Marine Sanctuary

NOAA's Gray's Reef National Marine Sanctuary was established in 1981 to protect one of the largest nearshore livebottom reefs off the southeastern United States. The sanctuary is located about 17 miles east of Sapelo Island, Georgia and encompasses 17 square nautical miles.

An estimated 160 species of fish have been recorded at Gray's Reef; approximately 33 species spawn there. The ledges and overhangs of the reef serve as resting and foraging areas for threatened loggerhead sea turtles, which nest on nearby barrier islands. Gray's Reef is near the critical habitat area and only known calving ground for the highly endangered North Atlantic right whale. Pelagic sea birds and shore birds feed on schooling baitfish within sanctuary waters. The sanctuary is well known to the recreational divers and fishers who visit it.

The mission of the National Marine Sanctuary Program is to serve as the trustee for the nation's system of marine protected areas to conserve, protect and enhance their biodiversity, ecological integrity and cultural legacy.

For more information,
contact NOAA's Gray's
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Visit us at graysreef.noaa.gov

